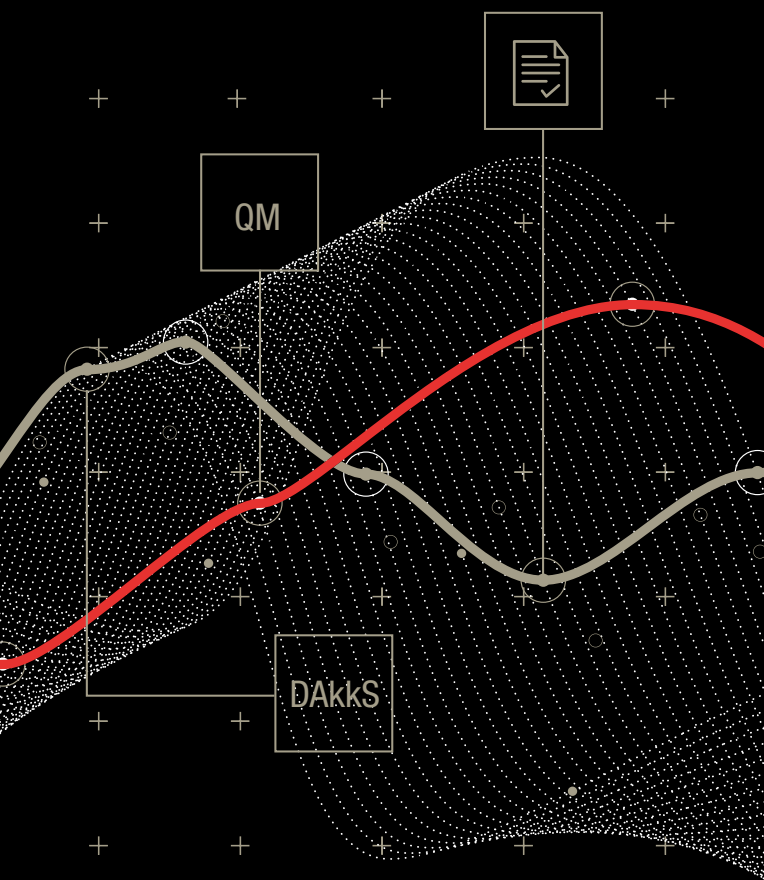


GOSSEN

GMC-INSTRUMENTS GROUP

Calibration Laboratory

Reliable Measurements
through Regular Calibration





QM

**90 YEARS
EXPERIENCE**
IN LIGHT MEASURING
TECHNOLOGY

PERFECTION THROUGH CALIBRATION

Professional Calibration Services on the Highest Level

The GOSSEN Light Lab is equipped with two optical benches, whose traceability to the national standards maintained by the PTB (German Federal Institute of Physics and Metrology) is assured for illuminance by means of several W41/G standard lamps and for UV-A 365 nm irradiance by means of a reference measuring device. The lab is subject to test equipment monitoring in accordance with DIN EN ISO 9001:2015, and is additionally accredited for illuminance and irradiance UV-A 365 nm by DAkkS in accordance with DIN EN ISO/IEC 17025:2018 under registration number D-K-20315-01-00. And thus you can count on product quality, the competence of our employees, continuous external monitoring and international recognition of our calibration services.

Consequently, calibration at regular intervals assures the quality of the respective product or service on the basis of internationally comparable measurement results. This provides for legal security with respect to product liability, as well as for approval tests and audits.

Benefits of Calibration

- ☑ **LEGAL CERTAINTY**
Avoidance of risks, dangers and costs due to incorrect measuring results
- ☑ **LEGAL CERTAINTY**
General recognition and legal certainty of the measuring result
- ☑ **TRACEABILITY**
Reliable, reproducible and traceable measuring results
- ☑ **STANDARD CONFORMITY**
Fulfillment of customer requirements, standards and regulations
- ☑ **COMPETITIVE ADVANTAGES**
Proven high quality level
- ☑ **NEUTRALITY**
Manufacturer-independent determination of the accuracy of measuring instruments
- ☑ **PREVENTION**
Early detection of changes or failures of measuring equipment

CALIBRATION LIGHT LAB

Reliable Measured Values through Calibration at Regular Intervals

The DIN EN ISO 9001:2015 demands test equipment monitoring, if this equipment is relevant for product quality or is used for the preparation of assessments. This test equipment must be calibrated at regular intervals and retraceable back to a National Standard.

Calibration means to state and document in a specific procedure the deviation of the meter display to an illuminant which is normed by and retraceable to a National Standard. The measuring instrument will not be changed.

Adjustment involves the correction or balancing of a measuring instrument in order to eliminate systematic measurement deviation. The measured value obtained from a measuring instrument is thus adjusted to match the known value of the test standard under specified reference conditions. The measuring instrument will be changed permanently.

A combination including receiving report, adjustment and final report is also possible for GOSSEN meters. This combination is required whenever a device is out of tolerance and it has to be judged whether previous measurements need to be repeated.





DAkKS - Calibration



0001
D-K-
20315-01-00
2022-08



Germany's
1. DAkKS
Calibration Lab
for Illuminance

- Smallest measuring uncertainty
- Traceability to national standards
- Worldwide acceptance without additional evidence
- Illuminance
Calibration range from 1.75 lx to 2000 lx with a relative extended measuring uncertainty of up to 1,5 %. ¹⁾
- Irradiance UV-A 365 nm
Calibration range from 100 $\mu\text{W}/\text{cm}^2$ to 6.000 $\mu\text{W}/\text{cm}^2$ with a relative extended measuring uncertainty of up to 10 %. ¹⁾

1) The relative extended measuring uncertainty depends on the measured value and the measuring instrument and is determined individually for each calibration value according to EA-4/02.

2) Calibration values greater than 50 000 lx or 10 000 cd/m^2 only for calibration items classified according to DIN 5032-7 Class C or better.



Factory - Calibration



GOSSEN
Werks- kalibrierung
08 - 2022

- Small measuring uncertainty
- Traceability to national standards
- Acceptance depends on the auditor
- Illuminance
Calibration range from 1 lx to 200 000 lx with a relative extended measuring uncertainty of up to 3 %. ^{1) 2)}
- Luminance
Calibration range from 0.5 cd/m^2 to 1 000 000 cd/m^2 with a relative extended measuring uncertainty of up to 4 %. ^{1) 2)}
- Irradiance UV-A 365 nm
Calibration range from 100 $\mu\text{W}/\text{cm}^2$ to 10.000 $\mu\text{W}/\text{cm}^2$ with a relative extended measuring uncertainty of up to 12 %. ¹⁾

Calibration of Devices from Other Manufacturers

After determining that devices from other manufacturers are capable of being calibrated, we are pleased to issue either a DAkKS or a factory calibration certificate. Devices from other manufacturers cannot be adjusted.

Calibration Intervals

The calibration interval depends on measured quantity and permissible tolerance, the extent to which the measuring and test equipment is subject to stressing, frequency of use, ambient conditions, stability of previous calibrations, required measuring accuracy, company-specific requirements specified by the quality assurance system and must be specified by the user under their consideration.

We recommend a calibration interval of 1 to 2 years for use under normal conditions. We recommend a calibration interval of 1 year for measuring instruments which are used on a regular basis for audits, evaluating work safety and assuring the quality of products and services, as well as under severe ambient conditions.

Measuring Services

As an independent company, we measure the characteristics of products manufactured or operated by you and submit a corresponding test report. Our offerings include the measurement of spectra, color rendering index, chromaticity, correlated color temperature, flicker, transmission and reflection within the visual range.

GOSSEN - Your Specialist for Light Measurement and Calibration

Classified illuminance and luminance meters, UV-A 365 nm meters, flicker, spectrometers as well as calibrations ensure the highest precision, traceability and acceptance. We are the first DAkkS accredited calibration laboratory for illuminance in Germany.

We look forward to your calibration order!

In order to assure that we can process your order as quickly as possible please complete the calibration service on our website.



Further information about
our light laboratory and the
calibration service you will find at:
www.gossen-photo.de/en/light-lab/

GOSSEN
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